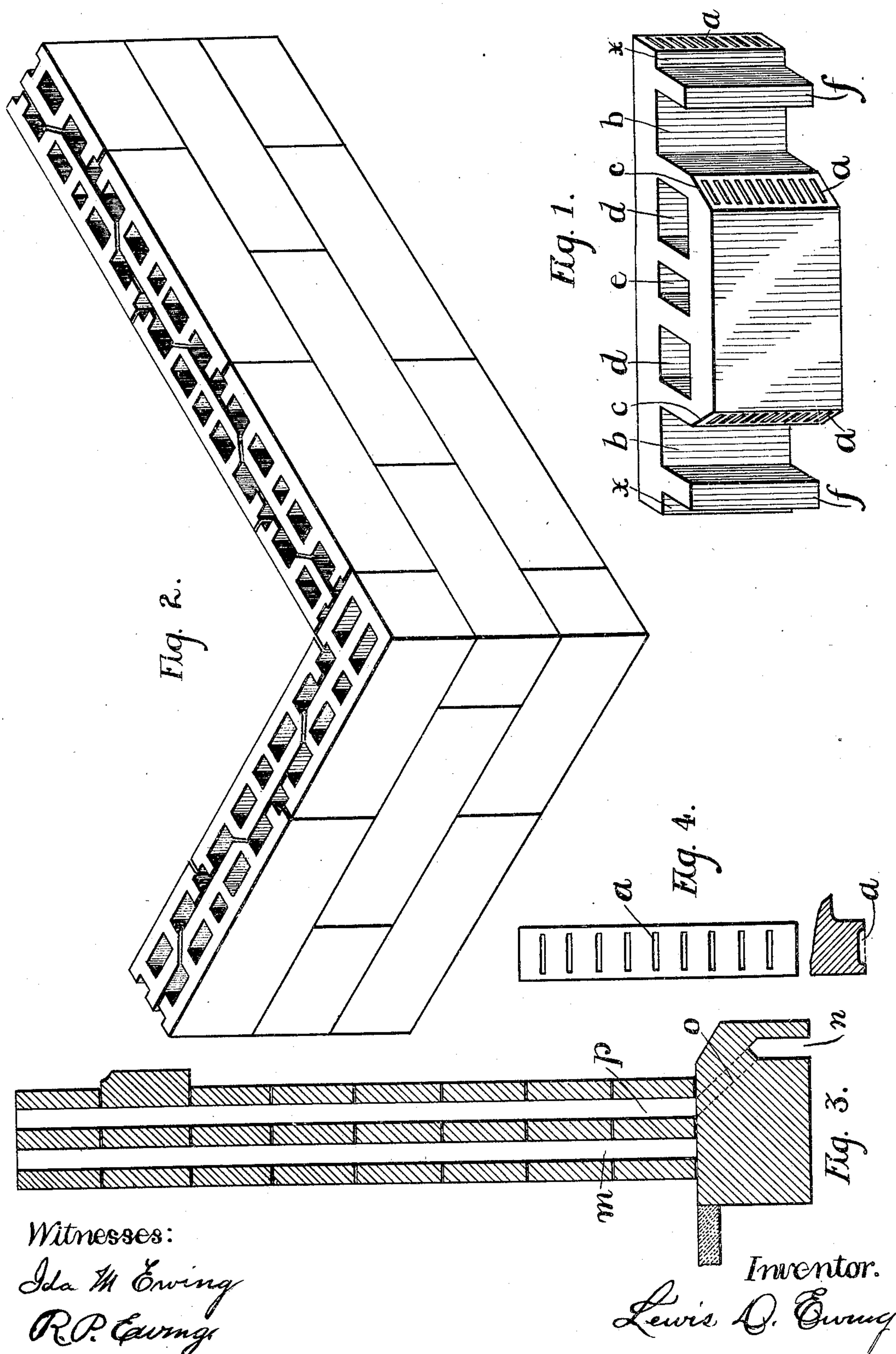


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L. D. EWING.
FOUNDATION WALL.
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UNITED STATES PATENT OFFICE.

LEWIS D. EWING, OF AKRON, OHIO.

FOUNDATION-WALL.

SPECIFICATION forming part of Letters Patent No. 793,645, dated July 4, 1905.

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To all whom it may concern:

Be it known that I, LEWIS D. EWING, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Foundation-Walls Composed of Building-Blocks, Preferably of Hardened Concrete or Cementitious Material, of which the following is a specification.

One object of this invention is to construct a wall of the character indicated, which wall is provided with plural rows of air-chambers extending vertically therethrough, and the wall being so constructed that no blocks nor continuous connection nor joints extend through the wall, thereby securing a wall free from dampness on the interior of the building.

Another object is to further provide against damp walls and wet cellars by preventing the moisture that permeates through the exterior portion of the wall to accumulate in the air-chambers in the interior of the wall by providing a drain in the foundation-footing and connecting the said air-chambers with said drain through openings or holes provided for said purpose.

Another object is to facilitate the application of mortar to the upright joints of conjoining ends of adjacent blocks by providing the conjoining ends with a series of horizontal grooves or indentations that the mortar or cement will penetrate and adhere to when applied with a slight pressure.

To more fully describe the above objects, reference is had to the accompanying drawings.

Figure I is a perspective view of one of the building-blocks used in constructing my improved wall. Fig. II is an elevation of a section of wall. Fig. III is a cross-section through the wall and the foundation-footing and drain. Fig. IV is an end view of conjoining ends.

Referring to Fig. I, d and d are openings extending vertically through the block and being equidistant from opposite ends, respectively, of the block, and the said block is provided centrally between the openings d and d with a hole e , which extends vertically through

the block, and the said block is provided in the side and adjacent the outer end of each opening d with a recess b , which extends vertically through the block, and the said block is also provided in each end thereof and adjacent the outer end of each recess b with a recess x , which extends vertically through the block, and the relative arrangements of the recesses x and b , openings d , and hole e of the block is such that adjacent recesses x in adjacent ends of adjacent blocks of a layer of blocks on the same side of wall register with each other and in connection with the inner side of the adjacent block on the opposite side of the wall forms a hole extending vertically between said blocks. Each hole e in each block of the upper of two adjacent layers of blocks registers with the hole formed by the recesses x in the adjacent ends of two blocks in connection with the inner side of the adjacent block on the opposite side of the wall in the lower of the said layers when the blocks of the said layers are assembled, so as to break joints centrally of the adjacent layer of blocks. That the openings formed by recesses b and b and the inner side of adjacent blocks on the opposite side of the wall register with openings d and d of the adjacent layer of blocks the conjoining sides c and c are at an angle to the side of the block and join similar angles on adjacent blocks.

Fig. 2 illustrates the building-blocks assembled in the wall and shows recesses x and b in connection with adjacent blocks forming openings or air-chambers extending vertically through the wall.

Fig. 3 shows a combination of an upright wall and a foundation-footing, in which n shows a recess in the under side of the exterior portion of the foundation-footing, which said recess forms a drain which provides a convenient and economical method of drainage, allowing the water to flow to an outlet at its lowest point, and o represents openings or holes which allow any accumulation of water in passage-ways p to flow into recess n , and m shows an air-chamber in the interior of the inner portion of the wall, which air absorbs the moisture penetrating the central division

of the wall, thereby making a dry wall on the interior of the building.

In Fig. 4 is shown a series of grooves or indentations placed in the conjoining ends of my improved building-blocks, which said grooves aid materially in reducing the expense of building a wall with building-blocks, saving material and overcoming the difficulty experienced in applying the mortar or cement to a smooth upright surface.

What I claim is—

1. A building-block, as shown, for wall construction, provided interiorly with openings d and d' which extend vertically through the block and arranged a suitable distance apart longitudinally of the block and equidistant or substantially equidistant from opposite ends respectively of the block, said block being provided also interiorly with a hole e which extends vertically through the block and centrally between the ends of the block, the said block being also provided in the side and adjacent the outer end of each opening d with a recess b which extends vertically through the block and said block being also provided in each end thereof and adjacent the outer end of each recess b , with a recess x which extends vertically through the block, and the said block

having the conjoining sides c and c' at an angle to the side or inner face of the block.

2. A foundation-footing composed of concrete or cementitious material having molded or cast on the side an overhanging projection forming a recess on the under side for drainage purposes.

3. In combination, the drain, the foundation-footing, and a wall extending upwardly from the foundation-footing, and the said wall being composed of building-blocks which are provided with openings or holes extending vertically therethrough and arranged to form circulating air-shafts, and the said foundation-footing being composed of concrete or cementitious material, having molded or cast on the exterior side an overhanging projection forming a recess or drain on the under side of the projection, and the said recess or drain being in communication with the said vertical air-shafts by openings or holes extending through the foundation-footing and connecting said drain with said air-shafts.

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Witnesses:

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